AMENDMENTS TO THE CLAIMS

1.   **(Currently Amended)** A method for collision avoidance in a wireless communication network wherein a first subset of communications devices exchange data through transmissions using a first protocol and a second subset of communications devices exchange data through transmissions using a second protocol and wherein the transmissions occur over at least partially overlapping frequencies, the method comprising:

acquiring transmission characteristics of a first transmission transmitting data using the first protocol, wherein a first quality of service range ~~level~~ is associated with the first transmission;

acquiring transmission characteristics of a second transmission transmitting data using the second protocol, wherein a second quality of service range ~~level~~ is associated with the second transmission;

analyzing the transmission characteristics to determine an imminent collision between the first transmission and the second transmission;

determining a first priority associated with the first transmission and a second priority associated with the second transmission, wherein the first priority is higher than the second priority;

determining a current quality of service of each of the first and second transmissions; and

prioritizing transmission of the first and second transmissions so as to maintain each of the first and second transmissions within their respective desired service levels, wherein the prioritizing is based at least partly on a determination as to whether the determined current quality of service of the second transmission is within the second quality of service range ~~the priorities and the current quality of service associated with the first and second transmissions~~.

2.   **(Original)**   The method of collision avoidance of Claim 1, wherein acquiring transmission characteristics comprises acquiring an order of transmitted data.

3.   **(Original)**   The method of collision avoidance of Claim 1, wherein acquiring transmission characteristics comprises acquiring a timing of transmitted data.

4.   **(Original)**   The method of collision avoidance of Claim 1, wherein acquiring transmission characteristics comprises acquiring a frequency that the data will be transmitted on.

5.   **(Original)**   The method of collision avoidance of Claim 1, wherein acquiring transmission characteristics comprises acquiring a channel that the data will be transmitted on.

6.   **(Original)**   The method of collision avoidance of Claim 1, wherein the first protocol or the second protocol comprises a frequency-hopping spread spectrum (FHSS) protocol.

7.   **(Original)**   The method of collision avoidance of Claim 6, wherein the FHSS protocol further comprises a Bluetooth protocol.

8.   **(Original)**   The method of collision avoidance of Claim 1, wherein the first protocol or the second protocol comprises a direct sequence spread spectrum (DSSS) protocol.

9.   **(Original)**   The method of collision avoidance of Claim 8, wherein the DSSS protocol comprises an IEEE 802.11 DSSS protocol or an IEEE 802.11b DSSS protocol.

10.   **(Original)**   The method of collision avoidance of Claim 1, wherein the imminent collision is avoided by moderating the transmissions of the first protocol during time frames where the first protocol and the second protocol are overlapping.

11.   **(Original)**   The method of collision avoidance of Claim 1, wherein the first or second protocols comprise fixed-frequency protocols.

12.   **(Original)**   The method of collision avoidance of Claim 1, wherein the first or second protocols comprise alternating-frequency protocols.

13.   **(Original)**   The method of Claim 1, wherein analyzing the data exchange further comprises determining a service level for the first protocol and a service level for the second protocol.

14.   **(Original)**   The method of Claim 13, wherein the service level for the first protocol and the service level for the second protocol are degraded by collisions between transmissions using the first protocol and the second protocol.

15.   **(Original)**   The method of Claim 14, wherein the service level for the first protocol and the service level for the second protocol are analyzed to determine if the service levels are in an acceptable range.

16.   **(Original)**   The method of Claim 15, wherein the service level for the first protocol and the second protocol are maintained within the acceptable range by moderating the transmissions of at least one of the protocols.

17.   **(Currently Amended)** A method for collision avoidance in a wireless communication network wherein data transmissions using a first protocol and a second protocol are utilized by a plurality of communications devices to exchange data and information over at least partially overlapping frequencies, the method comprising:

detecting an imminent collision between a first transmission transmitted according to the first protocol and a second transmission transmitted according to the second protocol, wherein the first transmission is a higher priority transmission;

moderating the first transmission in response to determining that a first current quality of service of the first transmission is within a desired first quality of service range and determining that a second current quality of service of the second transmission is outside of a desired second quality of service range; and

moderating the second transmission in response to determining that the second current quality of service of the second transmission is outside of the desired second quality of service range

~~acquiring transmission characteristics of a first transmission transmitting data packets using the first protocol and a second transmission transmitting data packets using the second protocol, wherein a first desired service level is associated with the first protocol and a second desired service level is associated with the second protocol;~~

~~analyzing the transmission characteristics to determine imminent collisions between the first transmission of data packets and the second transmission of data packets;~~

~~determining a first and a second transmission priorities associated with the first and second transmissions of data packets, respectively;~~

~~determining a current quality of service for at least one of the first and second transmissions; and~~

~~prioritizing transmission of the first and second transmissions of data packets so as to maintain each of the first and second transmissions of data packets within their~~

respective desired service levels, wherein the prioritizing is based at least partly on the priorities and the determined current quality of service.

18-21. **(Canceled)**

22.   **(Currently Amended)** The method of ~~collision avoidance of~~ Claim 17, wherein the first protocol or the second protocol comprises a frequency-hopping spread spectrum (FHSS) protocol.

23.   **(Currently Amended)** The method of ~~collision avoidance of~~ Claim 17, wherein the first protocol or the second protocol comprises a direct sequence spread spectrum (DSSS) protocol.

24.   **(Currently Amended)** The method of ~~collision avoidance of~~ Claim 17, wherein the first and the second protocols control subsets of communication devices that have at least partially overlapping transmission areas.

25-26. **(Canceled)**

27.   **(Currently Amended)**   The method of Claim <u>17</u> ~~26~~, wherein the <u>first</u> <u>transmission</u> ~~traffic types~~ comprises a voice <u>data</u> ~~quality traffic type and a data quality traffic type~~.

28.   **(Currently Amended)**   The method of Claim <u>27</u> ~~26~~, wherein the <u>second</u> <u>transmission comprises non-voice data</u> ~~moderating data exchange in at least one of the protocols further comprises prioritizing the traffic types based on the quality of service for the traffic types~~.

29.   **(Currently Amended)** The method of Claim <u>27</u> ~~26~~, wherein <u>the first protocol</u> <u>comprises a Bluetooth protocol and the second protocol comprises a WLAN protocol.</u> ~~moderating data exchange in at~~

~~least one of the protocols further comprises prioritizing the traffic types based upon~~ ~~desirable~~

~~transmission quality statistics~~.

30.   **(Currently Amended)** The method of Claim <u>17</u> ~~29~~, wherein <u>at least one of</u> the <u>first current quality of service and the second current quality of service</u> ~~statistics~~ comprise <u>an</u> <u>indicator of real-time</u> packet loss rates <u>of respective first and second transmissions</u>.

31.   **(Currently Amended)** The method of Claim <u>17</u> ~~29~~, wherein <u>at least one of</u> the <u>first current quality of service and the second current quality of service</u> ~~statistics~~ comprise <u>an</u> <u>indicator of real-time</u> packet delays <u>of respective first and second transmissions</u>.

32.   **(Currently Amended)** The method of Claim <u>17</u> ~~29~~, wherein <u>at least one of the</u> <u>first current quality of service and the second current quality of service</u> ~~statistics~~ comprise <u>an</u> indicator of real-time packet throughput <u>of respective first and second transmissions</u>.

33.   **(Currently Amended)** A data collision rectification device for use in a wireless communication network wherein data transmissions using frequency-overlapping protocols comprising a first protocol and a second protocol operate to exchange information between a plurality of data transfer nodes, the device comprising:

a coordination module which determines first and second transmission priorities associated with a first data transmission using the first protocol and a second data transmission using the second protocol, respectively; <u>and determines a first current</u> <u>quality of service of the first transmission and a second current quality of service of the</u> <u>second transmission;</u> ~~determines first and second desired quality of service levels~~ ~~associated with the first and second transmissions, respectively; and prioritizes~~ ~~transmission of the first and second transmissions so as to maintain each of the first and~~ ~~second transmissions within their respective desired quality of service levels, wherein the~~ ~~prioritization is based at least partly on the transmission priorities and a current quality of~~ ~~service associated with the first and second transmissions~~; and

a synchronization module which moderates <u>the first transmission in response to</u> <u>determining that (1) the first transmission priority is higher than the second transmission</u> <u>priority, (2) the second current quality of service is not within an acceptable quality of</u> <u>service range for transmissions using the second protocol, and (3) the first current quality</u> <u>of service is within an acceptable quality of service range for transmissions using the first</u> <u>protocol</u> ~~information exchange in at least one of the frequency-overlapping protocols~~ ~~according to the prioritization performed by the coordination module~~.

34.   **(Currently Amended)** The ~~data collision rectification~~ device of Claim 33, wherein the <u>synchronization module moderates the second transmission in response to</u> <u>determining that (1) the second transmission priority is lower than the first transmission priority</u> <u>and (2) the second current quality of service is within an acceptable quality of service range for</u> <u>transmissions using the second protocol</u> ~~coordination module applies a quality monitoring~~ ~~schema which distinguishes between one or more traffic types associated with the first and the~~

second frequency-overlapping protocols and assesses if acceptable quality of service is maintained for each traffic type.

35.   **(Currently Amended)**   The ~~data collision rectification~~ device of Claim 34, wherein the synchronization module moderates the traffic types to maintain acceptable quality of service.

36. **(Canceled)**

37.   **(Currently Amended)**   The ~~data collision rectification~~ device of Claim 34, wherein the <u>first</u> current quality of service <u>and the second current quality of service are</u> ~~is~~ determined by assessing <u>one or more</u> transmission characteristics of <u>respective first and second</u> <u>transmissions</u> ~~the traffic types~~.

38.   **(Currently Amended)**   The ~~data collision rectification~~ device of Claim 34, wherein <u>at least one of the first and second transmissions comprises</u> ~~the traffic types comprise~~ voice ~~quality traffic types or~~ data ~~quality traffic types~~.

39.   **(Currently Amended)**   The ~~data collision rectification~~ device of Claim 34, wherein the ~~traffic types~~ <u>first and second quality of service ranges each comprise one or more</u> <u>ranges of acceptable values for different quality of service metrics</u> ~~have individual quality of service requirements which must be met to maintain acceptable quality of service~~.

40.   **(Currently Amended)**   The ~~data collision rectification~~ device of Claim 33, wherein <u>at least one of</u> the frequency-overlapping protocols ~~comprise~~ <u>comprises</u> a frequency-hopping spread spectrum **(FHSS)** protocol.

41.   **(Currently Amended)**   The ~~data collision rectification~~ device of Claim 40 wherein the **FHSS** protocol further comprises a Bluetooth protocol.

42.   **(Currently Amended)**   The ~~data collision rectification~~ device of Claim 33, wherein <u>at least one of</u> the frequency-overlapping protocols <u>comprises</u> ~~comprise~~ a direct sequence spread spectrum **(DSSS)** protocol.

43.   **(Currently Amended)**   The ~~data collision rectification~~ device of Claim 42, wherein the **DSSS** protocol comprises an IEEE 802.11 **DSSS** protocol or <u>an</u> **IEEE** 802.11b **DSSS** protocol.

44.   **(Currently Amended)**   The ~~data collision rectification~~ device of Claim 33, wherein the frequency-overlapping protocols comprise fixed-frequency protocols or alternating-frequency protocols.

45-52. **(Cancelled)**

53.   **(New)**   A method of moderating transmission of data in a communication network, wherein a first device transmits a first transmission using a first protocol and a second device transmits a second transmission using a second protocol, the first and second protocols being associated with respective first and second priorities, wherein the first priority is higher than the second priority, the method comprising:

determining first and second quality of services ranges associated with respective first and second protocols;

monitoring a first current quality of service level of the first transmission and a second current quality of service level of the second transmission, wherein the first and second current quality of service levels are continuously updated during transmission of the first and second transmissions;

in response to detecting a collision between the first and second transmissions, moderating one of the first and second transmissions in the following manner:

moderating the second transmission in response to determining that the second current quality of service level is within the second quality of service range;

moderating the first transmission in response to determining that (1) the second current quality of service level is not within the second quality of service range and (2) the first current quality of service level is within the first quality of service range; and

moderating the first transmission in response to determining that (1) the second current quality of service level is not within the second quality of service range and (2) the first current quality of service level is not within the second quality of service level.